

CLAIMS

1. Immersion heater device for aquariums and the like, comprising a casing (2) which contains a heating element (6), wherein the casing, at least in the region of a radiant zone of the heating element, comprises a layered structure having at least one layer (8) of metal material and one layer (9) of plastics material, the layer of metal material being interposed between the heating element and the layer of plastics material, each of the layer of metal material and the layer of plastics material being in the form of a cylindrical tubular element, characterized in that the tubular element of plastics material (9) is closed at one end and open at an axially opposite end while the tubular element of metal material is open at both ends.
2. Heating device according to claim 1, wherein the layered structure comprises a layer of insulating material (21).
3. Heating device according to claim 1 or claim 2, wherein the layer of plastics material (9) and the layer of metal material (8) are in contact with each other.
4. Heating device according to claim 3, wherein the layer of metal material and the layer of plastics material completely surround the heating element.
5. Heating device according to claim 4, wherein the layer of metal material (8) and the layer of plastics material (9) constitute a continuous wall.
6. Heating device according to any one or more of claims 2 to 6, wherein the layer of insulating material (21) is interposed between the layer of metal material (8) and the heating element (6).
7. Heating device according to any one or more of the preceding claims, wherein the layer of metal material (8) is produced from aluminium.
8. Heating device according to any one or more of the preceding claims, wherein the layer of plastics material (9) is produced from resin reinforced with glass fibre.
9. Heating device according to claim 9, wherein the resin is polyamide.
10. Heating device according to any one or more of claims 2 to 10, wherein the layer of insulating material (21) is produced from mecanite or ceramic material.
11. Heating device according to any one or more of the preceding claims, wherein the casing (2) comprises a second tubular element (10) which is con-

ected to a first tubular element (3) having the layered structure, the second tubular element defining two axially opposite ends (10a, 10b) which are both open.

12. Heating device according to claim 12, wherein the second tubular element is mechanically connected, with sealing means being interposed, to the first tubular element (3) having a layered structure.

13. Heating device according to claim 13, wherein the mechanical connection means between the tubular elements are of the permanent type.

14. Heating device according to any one or more of claims 12 to 14, comprising a thermostat (13) for regulating the temperature of the water of the aquarium, which thermostat (13) is housed in the second tubular element (10).

15. Heating device according to any one or more of claims 12 to 15, wherein the second tubular element (10) is produced from transparent plastics material.

16. Heating device according to any one or more of the preceding claims, comprising means for limiting the temperature by interrupting the energy supply to the heating element (6) in the event that the temperature of the casing (2) exceeds a pre-set limit value.